CLAIMS

What is claimed is:

1. An apparatus for providing data on command utilizing a non-dedicated connection, the apparatus comprising:

an input to the apparatus for receiving a first command, wherein the first command causes the apparatus to enter a state that will not change upon receipt of additional first commands when the apparatus is already in said state;

a detecting circuit for detecting the occurrences of the first command, said detecting circuit coupled to the input of the apparatus;

a counting circuit for counting the occurrences of the first commands detected by the detecting circuit;

a timing circuit for generating a time window upon detection of an occurrence of the first command, said counting circuit counting the occurrences of the first command during the generation of the time window and resetting the count of the occurrences of the first command when the time window is not being generated; and

a trigger circuit for causing the data to be provided upon the counting circuit detecting a predetermined number of first commands during the timing window.

2. An apparatus as in claim 1 wherein the state is an on state and wherein the first command is a turn on command.

3. An apparatus as in claim 1 wherein the first command comprises a momentary grounding of the input to the apparatus.

4. An apparatus as in claim 1 wherein the detecting circuit comprises a clock input to a flip flop.

5. An apparatus as in claim 1 wherein the counting circuit comprises a binary counter.

6. An apparatus as in claim 1 wherein the timing circuit comprises a non-retriggerable monostable multivibrator.

7. An apparatus as in claim 1 wherein the apparatus is contained within or connected to a commercial air display unit.

8. An apparatus as in claim 7 wherein the first command input to the apparatus is "power" on, pin 6, of an ARINC 722 connector of said commercial airline display unit.

9. An apparatus as in claim 1 wherein the trigger circuit causes data to be provided upon detecting three first commands during a timing window of three seconds.

10. A method for providing data on command from an apparatus by utilizing a non-dedicated connection to said apparatus, the method comprising:

receiving a first command, wherein the first command causes the apparatus to enter a state that will not change upon receipt of the first command when the apparatus is already in the state;

detecting the occurrences of the first command in a detecting circuit;

counting the occurrences of the first command detected by the detecting circuit;

generating a time window upon detection of an occurrence of the first command;

counting the occurrences of the first command during the generation of the time window;

resetting the count of occurrences of the first command when the time window is not being generated; and

providing the data upon the counting circuit detecting a predetermined number of first commands during the timing window.

11. A method as in claim 10 wherein the receiving of a first command comprises receiving a turn on command.

12. A method as in claim 11 wherein the receiving of a first command comprises grounding pin 6, the power control on input, of an ARINC 722 connector.

13. A method as in claim 12 wherein the counting of occurrences of the first command comprises counting occurrences of the grounding of the power control on input, of an ARINC 722 connector.

14. A method as in claim 13 wherein providing the data upon the counting circuit detecting a predetermined number of first commands during the fixed timing window comprises providing the data upon the counting circuit detecting three turn on commands in three seconds.

15. A system for gathering data from a commercial airline display unit the system comprising:

an electronic unit for requesting and receiving said data, said electronic unit requesting said data by coupling a first signal to the commercial airline display unit a predetermined number of times within a predetermined time interval;

said airline display unit receiving said data request and superimposing said data in the form of a serial data stream upon a static status signal, said superimposed data being coupled to said electronic unit; and

a receiver within the electronic unit receiving and decoding the superimposed data.

16. A system as in claim 15 the electronic unit comprises a commercial aircraft tapping unit.

17. A system as in claim 15 wherein the static status signal comprises the "on indicator" on pin 8 of an ARINC 722 connector.

18. A system as in claim 15 wherein the first signal is the power control on signal.

19. A system as in claim 15 wherein the first signal is coupled to pin 6, the power control on input, of an ARINC 722 connector on said commercial airline display unit.

20. A status monitoring system for a display in an in-flight-entertainment system in an aircraft comprising:

a display unit operative for providing a video display to aircraft passengers and for providing a plurality of status signals;

a status reporting circuit incorporated within or coupled to said display unit for receiving said plurality of status signals;

a system control unit connected to an aircraft bus for communicating commands to said display unit;

a tapping unit coupled to said aircraft bus between said system control unit and the status reporting circuit, said tapping unit coupled to said status reporting circuit through an ARINC 722 connector;

said status reporting circuit transmitting said plurality of status signals to said system control unit via said tapping unit;

said status reporting circuit transmitting said plurality of status signals to said tapping unit along pin 8 of said ARINC 722 connector; said plurality of status signals superimposed on a static display-on indicator; and

said status reporting circuit responsive to a signal along a "power-on" pin 6 of said ARINC 722 connector for initiating transmission of said plurality of status signals.

21. A status monitoring system as recited in claim 20 wherein said status reporting circuit further comprises:

a power on detection circuit coupled to receive a power-on signal along pin 6 of said ARINC connector and providing an output signal in response to detection of said power-on signal;

a delay circuit connected to an output of said detection circuit and responsive to said power-on signal to generate a delayed signal; and

said status reporting signal responsive to said delay signal for transmitting said plurality of status signals to said tapping unit.

22. A status monitoring system as recited in claim 21 wherein said status reporting unit is response to a predetermined sequence of addition signals along pin 6 of said ARINC connector to transmit current values said plurality of status signals.

23. A status monitoring system for a display in an in-flight-entertainment system in an aircraft comprising:

a display unit operative for providing a video display to aircraft passengers and for providing a plurality of status signals;

a status reporting circuit incorporated within or coupled to said display unit for receiving said plurality of status signals;

a system control unit connected to an aircraft bus for communicating commands to said display unit;

a tapping unit coupled to said aircraft bus between said system control unit and the status reporting circuit, said tapping unit coupled to said status reporting circuit through an ARINC 722 connector;

said status reporting circuit transmitting said plurality of status signals to said system control unit via said tapping unit;

said status reporting circuit transmitting said plurality of status signals to said tapping unit along pin 8 of said ARINC 722 connector; said plurality of status signals superimposed on a static display-on indicator; and

said status reporting circuit responsive to a built-in-test signal indicative of a failure of said display unit for initiating transmission of said plurality of status signals.

24. A status monitoring system as recited in claim 23 wherein said status reporting unit further comprises a memory device for storing said plurality of status signals upon the occurrence of said built-in-test signal indicating a failure of said display unit.

25. A status monitoring system for a display in an in-flight-entertainment system in an aircraft comprising:

a plurality of display units, each operative for providing a video display to at least one aircraft passenger and for providing a plurality of status signals corresponding to each display unit;

a status reporting circuit incorporated within or coupled to each of said plurality of display unit for receiving said plurality of status signals;

a system control unit connected to an aircraft bus for communicating commands to said plurality of display units;

a plurality of tapping unit coupled to said aircraft bus between said system control unit and the status reporting circuits, said plurality of tapping unit coupled to said status reporting circuits through a corresponding plurality of ARINC 722 connectors;

said status reporting circuits transmitting said plurality of status signals to said system control unit via said plurality of tapping unit;

said status reporting circuits transmitting said plurality of status signals to said plurality of tapping unit along pin 8 of said ARINC 722 connectors; said plurality of status signals superimposed on a static display-on indicator; and

each of said status reporting circuits responsive to a signal along a "power-on" pin 6 of said ARINC 722 connector for initiating transmission of said corresponding plurality of status signals.

26. A status monitoring system for a display in an in-flight-entertainment system in an aircraft comprising:

a plurality of display units, each operative for providing a video display to at least one aircraft passenger and for providing a plurality of status signals corresponding to each display unit;

a status reporting circuit incorporated within or coupled to each of said plurality of display unit for receiving said plurality of status signals;

a system control unit connected to an aircraft bus for communicating commands to said plurality of display units;

a plurality of tapping unit coupled to said aircraft bus between said system control unit and the status reporting circuits, said plurality of tapping unit coupled to said status reporting circuits through a corresponding plurality of ARINC 722 connectors;

said status reporting circuits transmitting said plurality of status signals to said system control unit via said plurality of tapping unit;

said status reporting circuits transmitting said plurality of status signals to said plurality of tapping unit along pin 8 of said ARINC 722 connectors; said plurality of status signals superimposed on a static display-on indicator; and

said status reporting circuits responsive to a built-in-test signal indicative of a failure of said a corresponding one of said plurality of display units for initiating transmission of said corresponding plurality of status signals.